WHAT IS CLAIMED IS:

1. A pressure sensitive adhesive comprising:

a silicone tackifying resin having no greater than about 1.5 wt-% Si-OH functional groups; and

a polydiorganosiloxane polyurea copolymer.

2. The pressure sensitive adhesive of claim 1 wherein the pressure sensitive adhesive adheres to both high and low surface energy materials as well as those in between, wherein the high surface energy material has a surface energy above about 70 dynes/cm and the low surface energy material has a surface energy below about 50 dynes/cm.

3. The pressure sensitive adhesive of claim 1 wherein when the adhesive is disposed on a 50.8-micrometer thick PET backing at an adhesive thickness of 50.8 micrometers to form a single-coated tape and adhered to a high density polyethylene coupon, the tape displays a 180° peel force of at least about 55 N/dm when measured at a rate of 30.5 cm/min at room temperature after a dwell time of one minute at room temperature.

4. The pressure sensitive adhesive of claim 1 wherein when the adhesive is disposed on a 50.8-micrometer thick PET backing at an adhesive thickness of 50.8 micrometers to form a single-coated tape and adhered to a stainless steel coupon, the tape displays a 180° peel force of at least about 60 N/dm when measured at a rate of 30.5 cm/min at room temperature after a dwell time of one minute at room temperature.

5. The pressure sensitive adhesive of claim 1 wherein when the adhesive is disposed on a 1 millimeter thick 87.5/12.5 isooctyl acrylate/acrylic acid foam backing at an adhesive thickness of 50.8 micrometers to form a double-coated tape and adhered to a high density polyethylene coupon, the tape displays a 90° peel force of at least about 230 N/dm when measured at a rate of 30.5 cm/min at room temperature after a dwell time of 72 hours at room temperature.

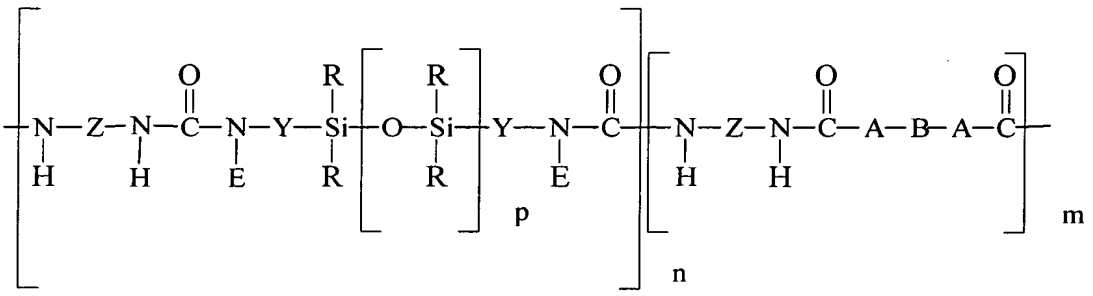
6. The pressure sensitive adhesive of claim 1 wherein when the adhesive is disposed on a 1 millimeter thick 87.5/12.5 isooctyl acrylate/acrylic acid foam backing at an adhesive thickness of 50.8 micrometers to form a double-coated tape and adhered to a stainless steel coupon, the tape displays a 90° peel force of at least about 300 N/dm when measured at a rate of 30.5 cm/min at room temperature after a dwell time of 72 hours at room temperature.

7. The pressure sensitive adhesive of claim 1 wherein when the adhesive is disposed on a 1 millimeter thick 87.5/12.5 isooctyl acrylate/acrylic acid foam backing at an adhesive thickness of 50.8 micrometers to form a double-coated tape and adhered to a polypropylene coupon, the tape displays a 90° peel force of at least about 400 N/dm when measured at a rate of 30.5 cm/min at room temperature after a dwell time of 72 hours at room temperature.

8. The pressure sensitive adhesive of claim 1 wherein the polydiorganosiloxane polyurea copolymer is the reaction product of a polydiorganosiloxane polyamine with a polyisocyanate.

9. The pressure sensitive adhesive of claim 8 wherein the polydiorganosiloxane polyurea copolymer is the reaction product of a polydiorganosiloxane polyamine with a polyisocyanate and a polyfunctional chain extender.

10. The pressure sensitive adhesive of claim 1 wherein the polydiorganosiloxane polyurea copolymer comprises the following repeating unit:



where:

each R is independently an alkyl moiety, a vinyl moiety or higher alkenyl moiety, a cycloalkyl moiety, an aryl moiety, or a fluorine-containing group;

each Z is independently a polyvalent moiety that is an arylene moiety, an aralkylene moiety, an alkylene moiety, or a cycloalkylene moiety;

each Y is independently a polyvalent moiety that independently is an alkylene moiety, an aralkylene moiety or an arylene moiety;

each E is independently hydrogen, an alkyl moiety of 1 to 10 carbon atoms, phenyl, or a moiety that completes a ring structure including Y to form a heterocycle;

each A is independently oxygen or –N(G)–, wherein each G is independently hydrogen, an alkyl moiety of 1 to 10 carbon atoms, phenyl, or a moiety that completes a ring structure including B to form a heterocycle;

B is an alkylene, aralkylene, cycloalkylene, phenylene, polyalkylene, polyalkylene oxide, copolymers, or mixtures thereof, or a moiety completing a ring structure including A to form a heterocycle;

m is a number that is 0 to about 1000;

n is a number that is equal to or greater than 1; and

p is a number that is about 5 or larger.

11. The pressure sensitive adhesive of claim 10 wherein at least 50% of the R moieties are methyl moieties with the balance being monovalent alkyl or substituted alkyl moieties having 1 to 12 carbon atoms, alkenylene moieties, phenyl moieties, or substituted phenyl moieties.

12. The pressure sensitive adhesive of claim 10 wherein m is a number that is 0 to about 25.

13. The pressure sensitive adhesive of claim 10 wherein n is a number that is greater than 8.

14. The pressure sensitive adhesive of claim 10 wherein p is a number that is about 70 to about 1500.

15. The pressure sensitive adhesive of claim 1 wherein the silicone tackifying resin has no greater than about 1.2 wt-% Si-OH functional groups.

16. The pressure sensitive adhesive of claim 15 wherein the silicone tackifying resin has no greater than about 1.0 wt-% Si-OH functional groups.

17. The pressure sensitive adhesive of claim 1 wherein the silicone tackifying resin is present in an amount of at least about 55 wt-%, based on the weight of the silicone tackifying resin and the polydiorganosiloxane polyurea copolymer.

18. The pressure sensitive adhesive of claim 1 wherein the silicone tackifying resin has an M/Q ratio of at least about 0.7:1.0.

19. The pressure sensitive adhesive of claim 1 wherein the silicone tackifying resin has a molecular weight of about 100 to about 50,000.

20. The pressure sensitive adhesive of claim 1 further comprising a plasticizer.

21. The pressure sensitive adhesive of claim 1 which is solvent based.

22. A pressure sensitive adhesive comprising:

a silicone tackifying resin having no greater than about 1.5 wt-% Si-OH functional groups; and

a polydiorganosiloxane polyurea copolymer;

wherein the pressure sensitive adhesive satisfies at least one of the following criteria:

the pressure sensitive adhesive adheres to both high and low surface energy materials as well as those in between, wherein the high surface energy material has a

surface energy above about 70 dynes/cm and the low surface energy material has a surface energy below about 50 dynes/cm;

when the adhesive is disposed on a 50.8-micrometer thick PET backing at an adhesive thickness of 50.8 micrometers to form a single-coated tape and adhered to a high density polyethylene coupon, the tape displays a 180° peel force of at least about 55 N/dm when measured at a rate of 30.5 cm/min at room temperature after a dwell time of one minute at room temperature;

when the adhesive is disposed on a 50.8-micrometer thick PET backing at an adhesive thickness of 50.8 micrometers to form a single-coated tape and adhered to a stainless steel coupon, the tape displays a 180° peel force of at least about 60 N/dm when measured at a rate of 30.5 cm/min at room temperature after a dwell time of one minute at room temperature;

when the adhesive is disposed on a 1 millimeter thick 87.5/12.5 isooctyl acrylate/acrylic acid foam backing at an adhesive thickness of 50.8 micrometers to form a double-coated tape and adhered to a high density polyethylene coupon, the tape displays a 90° peel force of at least about 230 N/dm when measured at a rate of 30.5 cm/min at room temperature after a dwell time of 72 hours at room temperature;

when the adhesive is disposed on a 1 millimeter thick 87.5/12.5 isooctyl acrylate/acrylic acid foam backing at an adhesive thickness of 50.8 micrometers to form a double-coated tape and adhered to a stainless steel coupon, the tape displays a 90° peel force of at least about 300 N/dm when measured at a rate of 30.5 cm/min at room temperature after a dwell time of 72 hours at room temperature; or

when the adhesive is disposed on a 1 millimeter thick 87.5/12.5 isooctyl acrylate/acrylic acid foam backing at an adhesive thickness of 50.8 micrometers to form a double-coated tape and adhered to a polypropylene coupon, the tape displays a 90° peel force of at least about 400 N/dm when measured at a rate of 30.5 cm/min at room temperature after a dwell time of 72 hours at room temperature.

23. A pressure sensitive adhesive comprising:

a silicone tackifying resin having no greater than about 1.5 wt-% Si-OH functional groups and an M/Q ratio of at least about 0.7:1.0; and

a polydiorganosiloxane polyurea copolymer;

wherein the pressure sensitive adhesive adheres to both high and low surface energy materials as well as those in between, wherein the high surface energy material has a surface energy above about 70 dynes/cm and the low surface energy material has a surface energy below about 50 dynes/cm.

24. The pressure sensitive adhesive of claim 23 wherein an adhesive tape construction comprising the adhesive displays a greater initial peel performance to high density polyethylene or stainless steel relative to an adhesive tape construction comprising a comparable molecular weight silicone tackifying resin with greater than 1.5 wt-% silanol functionality.

25. The pressure sensitive adhesive of claim 23 wherein an adhesive tape construction comprising the adhesive displays an at least about 53% greater aged peel performance to high density polyethylene or an at least about 24% greater aged peel performance to stainless steel relative to an adhesive tape construction comprising a comparable molecular weight silicone tackifying resin with greater than 1.5 wt-% silanol functionality.

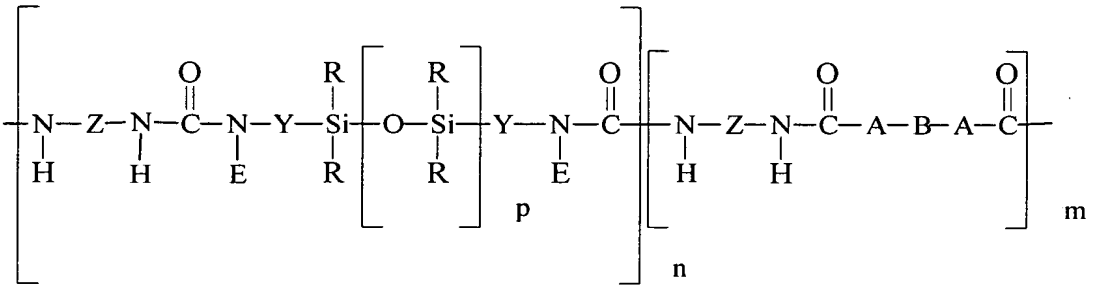
26. The pressure sensitive adhesive of claim 23 wherein a sample comprising the adhesive coated on a fluorosilicone-coated 50.8-micrometer-thick PET film at an adhesive thickness of about 50.8 micrometers and aged for one week at 70°C followed by one day at room temperature, the force required to remove the film at an angle of 180° is no greater than about 20 N/dm.

27. The pressure sensitive adhesive of claim 23 further comprising a plasticizer.

28. A pressure sensitive adhesive comprising:

a silicone tackifying resin having no greater than about 1.5 wt-% Si-OH functional groups silicone and an M/Q ratio of at least about 0.7:1.0; and

a polydiorganosiloxane polyurea copolymer comprising the following repeating unit:



where:

each R is independently an alkyl moiety, a vinyl moiety or higher alkenyl moiety, a cycloalkyl moiety, an aryl moiety, or a fluorine-containing group;

each Z is independently a polyvalent moiety that is an arylene moiety, an aralkylene moiety, an alkylene moiety, or a cycloalkylene moiety;

each Y is independently a polyvalent moiety that independently is an alkylene moiety, an aralkylene moiety or an arylene moiety;

each E is independently hydrogen, an alkyl moiety of 1 to 10 carbon atoms, phenyl, or a moiety that completes a ring structure including Y to form a heterocycle;

each A is independently oxygen or –N(G)–, wherein each G is independently hydrogen, an alkyl moiety of 1 to 10 carbon atoms, phenyl, or a moiety that completes a ring structure including B to form a heterocycle;

B is an alkylene, aralkylene, cycloalkylene, phenylene, polyalkylene, polyalkylene oxide, copolymers, or mixtures thereof, or a moiety completing a ring structure including A to form a heterocycle;

m is a number that is 0 to about 1000;

n is a number that is equal to or greater than 1; and

p is a number that is about 5 or larger.

29. A pressure sensitive adhesive solution comprising:

a silicone tackifying resin having no greater than about 1.5 wt-% Si-OH functional groups;

a polydiorganosiloxane polyurea copolymer;

an organic solvent; and

a processing aid.

30. The pressure sensitive adhesive solution of claim 29 wherein the processing aid is transient.

31. An adhesive article comprising a backing and the pressure sensitive adhesive of claim 1 disposed on at least one major surface thereof.

32. The adhesive article of claim 31 wherein the backing is a foam backing.

33. The adhesive article of claim 31 which is a transfer tape.

34. The adhesive article of claim 31 further comprising a primer between the backing and the pressure sensitive adhesive.

35. The adhesive article of claim 34 wherein the primer comprises a polydiorganosiloxane polyurea copolymer comprising electron rich groups.

36. The adhesive article of claim 35 wherein the electron rich groups are tertiary amine groups, pyridine groups, and combinations thereof.

37. The adhesive article of claim 34 wherein the backing comprises acid functional groups.

38. An adhesive article comprising a backing and the pressure sensitive adhesive of claim 22 disposed on at least one major surface thereof.

39. The adhesive article of claim 38 wherein the backing is a foam backing.

40. The adhesive article of claim 38 which is a transfer tape.

41. The adhesive article of claim 38 further comprising a primer between the backing and the pressure sensitive adhesive.

42. The adhesive article of claim 41 wherein the primer comprises a polydiorganosiloxane polyurea copolymer comprising electron rich groups.

43. The adhesive article of claim 42 wherein the electron rich groups are tertiary amine groups, pyridine groups, and combinations thereof.

44. The adhesive article of claim 38 wherein the backing comprises acid functional groups.

45. An adhesive article comprising a backing and the pressure sensitive adhesive of claim 28 disposed on at least one major surface thereof.

46. The adhesive article of claim 45 wherein the backing is a foam backing.

47. The adhesive article of claim 45 which is a transfer tape.

48. The adhesive article of claim 45 further comprising a primer between the backing and the pressure sensitive adhesive.

49. The adhesive article of claim 48 wherein the primer comprises a polydiorganosiloxane polyurea copolymer comprising electron rich groups.

50. The adhesive article of claim 49 wherein the electron rich groups are tertiary amine groups, pyridine groups, and combinations thereof.

51. The adhesive article of claim 49 wherein the backing comprises acid functional groups.

52. An article comprising two substrates and the pressure sensitive adhesive of claim 1 disposed therebetween.

53. The article of claim 52 comprising a vibration damper, a reclosable fastener, a panel, an abrasive pad, a spacer, a body side molding, a flexographic plate, a muntin bar, a spacer, or a sign.

54. An article comprising two substrates and the pressure sensitive adhesive of claim 22 disposed therebetween.

55. The article of claim 54 comprising a vibration damper, a reclosable fastener, a panel, an abrasive pad, a spacer, a body side molding, a flexographic plate, a muntin bar, a spacer, or a sign.

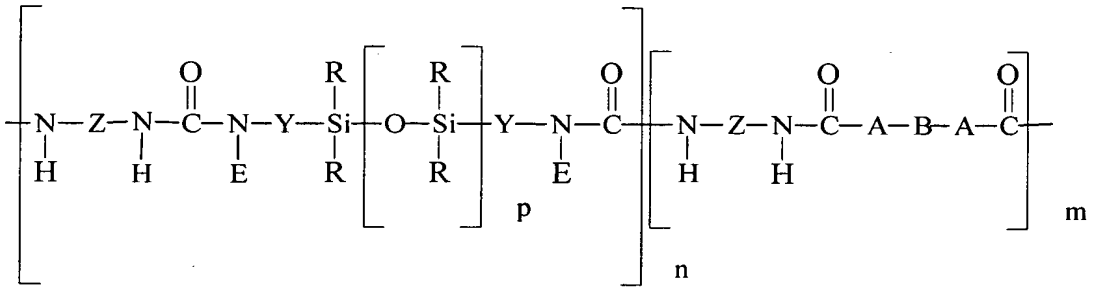
56. An article comprising two substrates and the pressure sensitive adhesive of claim 28 disposed therebetween.

57. The article of claim 56 comprising a vibration damper, a reclosable fastener, a panel, an abrasive pad, a spacer, a body side molding, a flexographic plate, a muntin bar, a spacer, or a sign.

58. A method of making a pressure sensitive adhesive comprising combining a silicone tackifying resin having no greater than about 1.5 wt-% Si-OH functional groups and a polydiorganosiloxane polyurea copolymer.

59. The method of claim 58 wherein the polydiorganosiloxane polyurea copolymer is prepared by reacting a polydiorganosiloxane polyamine with a polyisocyanate and a polyfunctional chain extender.

60. The method of claim 58 wherein the polydiorganosiloxane polyurea copolymer comprises the following repeating unit:



where:

each R is independently an alkyl moiety, a vinyl moiety or higher alkenyl moiety, a cycloalkyl moiety, an aryl moiety, or a fluorine-containing group;

each Z is independently a polyvalent moiety that is an arylene moiety, an aralkylene moiety, an alkylene moiety, or a cycloalkylene moiety;

each Y is independently a polyvalent moiety that independently is an alkylene moiety, an aralkylene moiety or an arylene moiety;

each E is independently hydrogen, an alkyl moiety of 1 to 10 carbon atoms, phenyl, or a moiety that completes a ring structure including Y to form a heterocycle;

each A is independently oxygen or –N(G)–, wherein each G is independently hydrogen, an alkyl moiety of 1 to 10 carbon atoms, phenyl, or a moiety that completes a ring structure including B to form a heterocycle;

B is an alkylene, aralkylene, cycloalkylene, phenylene, polyalkylene, polyalkylene oxide, copolymers, or mixtures thereof, or a moiety completing a ring structure including A to form a heterocycle;

m is a number that is 0 to about 1000;

n is a number that is equal to or greater than 1; and

p is a number that is about 5 or larger.

61. The method of claim 60 wherein the silicone tackifying resin has no greater than about 1.2 wt-% Si-OH functional groups.

62. The method of claim 60 wherein the silicone tackifying resin is present in an amount of at least about 55 wt-%, based on the weight of the silicone tackifying resin and the polydiorganosiloxane polyurea copolymer.

63. The method of claim 60 wherein the silicone tackifying resin has an M/Q ratio of at least about 0.7:1.0.